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DIVISION 02 - SITE CONSTRUCTION

SECTION 02821

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SECTION 02821

CHAIN LINK FENCES AND GATES

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

FS RR-F-191	(Rev. K) Fencing, Wire and Post Metal (and Gates, Chain-Link Fence Fabric, and Accessories) (General Specification)
FS RR-F-191/1	(Rev. D) Fencing, Wire and Post, Metal (Chain-Link Fence Fabric) (Detail Specification)
FS RR-F-191/3	(Rev. D) Fencing, Wire and Post, Metal (Chain-Link Fence Posts, Top Rails and Braces) (Detail Specification)
FS RR-F-191/4	(Rev. D) Fencing, Wire and Post, Metal (Chain-Link Fence Accessories) (Detail Specification)

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Fence

Fence dimensions, materials and finishes

Post anchorage details

Fence installation

SD-06 Instructions

Fence

## Grand Forks Phase 3 Levees

### 1.3 DELIVERY, STORAGE, AND HANDLING

Deliver materials to site in an undamaged condition. Store materials off the ground to provide protection against oxidation caused by ground contact.

### 1.4 QUALITY ASSURANCE

#### 1.4.1 Required Report Data

Submit reports of listing of chain-link fencing and accessories regarding weight in ounces for zinc coating.

## PART 2 PRODUCTS

### 2.1 CHAIN-LINK FENCING AND ACCESSORIES

FS RR-F-191 and detailed specifications as referenced and other requirements as specified.

#### 2.1.1 Fabric

FS RR-F-191/1; Type I, zinc-coated steel, 9 gage. Mesh size, 2 inches. Provide selvage knuckled at both selvages. Fence height shall be 6 feet to top of mesh and framing.

#### 2.1.2 Posts and Braces

FS RR-F-191/3 line posts; Class 1, steel pipe, Grade B. End, corner, and pull posts; Class 1, steel pipe, Grade B. Braces; Class 1, steel pipe, Grade B.

#### 2.1.3 Fencing Accessories

FS RR-F-191/4. Provide wire ties constructed of the same material as the fencing fabric.

#### 2.1.4 Concrete

Provide as specified in Section 03300 CAST-IN-PLACE CONCRETE.

## PART 3 EXECUTION

### 3.1 SITE PREPARATION

#### 3.1.1 Clearing and Grading

Clear fence line of trees, brush, and other obstacles to install fencing. Establish a graded, compacted fence line prior to fencing installation. Compact fill used to establish fence line.

#### 3.1.2 Excavation

Excavate for concrete-embedded items in accordance with manufacturer's recommendations. Dispose of waste material as specified in Section 02300

EARTHWORK.

3.2 FENCE INSTALLATION

Install fence on prepared surfaces to line and grade indicated. Install fence in accordance with fence manufacturer's written installation instructions except as modified herein.

3.2.1 Post Spacing

Provide line posts spaced as shown on drawings. Provide corner or pull posts, with bracing in both directions for all posts.

3.2.2 Post Setting

Set posts plumb. Allow concrete to cure a minimum of 72 hours before performing other work on posts.

3.2.2.1 Earth

Provide concrete bases of dimensions indicated. Compact concrete to eliminate voids, and finish to a dome shape.

3.2.3 Bracing

Brace corner, end, and pull posts to nearest post with a horizontal brace used as a compression member, placed at least 12 inches below top of fence, and a diagonal truss rod and truss tightener used as a tension member.

3.2.4 Top and Bottom Tension Wires

Install top and bottom tension wires before installing chain-link fabric, and pull wires taut. Place top and bottom tension wires within 8 inches of respective fabric line.

3.2.5 Fabric

Pull fabric taut and secure fabric to top wire and bottom wire, close to both sides of each post and at maximum intervals of 24 inches on center. Secure fabric to posts using stretcher bars, ties or clips spaced 15 inches on center, or by integrally weaving to integral fastening loops of end, corner and pull for full length of each post. Install fabric on opposite side of posts from area being secured. Install fabric so that bottom of fabric is 2 inches above ground level.

3.3 ACCESSORIES INSTALLATION

3.3.1 Post Caps

Install post caps as recommended by the manufacturer.

3.4 CLEANUP

Remove waste fencing materials and other debris from the station.

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